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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/231,791 01/15/99 GUARINO

G Q-52856

EXAMINER

IM52/0412

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2100 PENNSYLVANIA AVENUE
WASHINGTON DC 20037-3202

VARCOE JR, F

ART UNIT

PAPER NUMBER

1764

DATE MAILED:

04/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/231,791

Applicant(s)
Guarino et al.

Examiner
Varcoe

Group Art Unit
1764



☒ Responsive to communication(s) filed on Feb 2, 2001

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-6, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Poussin U.S. Patent No. 5,202,097.

With regard to claim 1, Poussin discloses construction of an assembly having an unperforated cylindrical wall (Figure 1 (10)) coaxial to the gas outlet wall (Figure 1 (9)) in the catalytic bed (31), the unperforated cylindrical wall (10) extending from an upper end of the gas outlet wall for a portion of the outlet wall of a prefixed length.

Poussin discloses a free-space between the gas outlet wall (9) and the unperforated wall (10).

Poussin discloses providing means for closing an upper end of the free-space between the unperforated wall (10) and the gas outlet wall (9), in proximity of the upper end of the gas outlet wall, thereby preventing a bypass of the catalytic bed or a recycling to the catalytic bed of the gas entering and leaving the reactor.

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With regard to claim 4, Poussin discloses the unperforated wall supported by the gas outlet wall (Figure 1).

With regard to claim 5, Poussin discloses a gas outlet wall having a diameter smaller than the diameter of the gas inlet wall and of the unperforated wall (Figure 1). Poussin further discloses the unperforated wall supported by a gas-tight horizontal baffle (Figure 1) which protrudes above the upper end of the gas outlet wall and rests on the gas outlet wall.

With regard to claim 6, Poussin discloses a synthesis reactor comprising an external shell (Figure 1 (33)) a catalytic bed (Figure 1 (31)) provided with a perforated inlet wall (Figure 1 (7)) and a perforated outlet wall (Figure 1 (9)) in the shell.

Poussin discloses apparatus having an unperforated cylindrical wall (Figure 1 (10)) coaxial to the gas outlet wall (9) in the catalytic bed (31), the unperforated cylindrical wall (10) extending from an upper end of the gas outlet wall for a portion of the outlet wall of a prefixed length.

Poussin discloses defining a free-space between the gas outlet wall (9) and the unperforated wall (10).

Poussin discloses providing means for closing the free-space between the unperforated wall (10) and the gas outlet wall (9), in proximity of the upper end of the gas outlet wall,

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preventing a bypass of the catalytic bed or a recycling to the catalytic bed of the gas entering and leaving the reactor.

With regard to claim 9, Poussin discloses the unperforated wall supported by the gas outlet wall. Poussin Figure 1.

With regard to claim 10, Poussin discloses a gas outlet wall having a diameter smaller than the diameter of the gas inlet wall and of the unperforated wall. Poussin Figure 1.

Poussin further discloses the unperforated wall supported by a gas-tight horizontal baffle (Figure 1) which protrudes above the upper end of the gas outlet wall and rests on the gas outlet wall.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 2, 3, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poussin U.S. Patent No. 5,202,097 as applied to claims 1, 4-6, 9 and 10 above.

With regard to claims 2 and 7, Poussin discloses essentially the same invention as the instant claim but fails expressly to disclose that the unperforated wall extends for a portion comprising between 5% and 50% of the length of the gas outlet wall.

At the time of the invention it would have been obvious to one skilled in the art to extend the unperforated wall for a distance comprising between 5% and 50% of the length of the gas outlet wall. The motivation would have arisen as a design choice.

The length of the unperforated wall can also be considered a result-effective variable. The wall could be extended while monitoring the extent of undesired bypassing of the catalyst by the process stream. When the bypassing has dropped to an acceptable level, the wall is long enough.

With regard to claims 3 and 8, Poussin discloses essentially the same invention as the instant claim but fails expressly to disclose that the free space has a thickness of between 0.5 and 10 cm.

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At the time of the invention it would have been obvious to one skilled in the art to construct the free space with a thickness of between 0.5 and 10 cm. The motivation would have arisen as a design choice.

The thickness can also be considered a result-effective variable. The thickness could be extended while monitoring the performance of the system. When the performance reaches an acceptable level, the thickness can be considered adequate.

Response to Arguments

6. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

The 35 U.S.C. §112 rejections in the last Office action have been withdrawn.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Varcoe, whose telephone number is (703) 306-5477. The examiner can normally be reached Monday through Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode, can be reached on (703) 308-4311.

The FAX telephone number for this Group Art Unit is (703) 305-3599 (for Official papers after Final), (703) 305-5408 (for other Official papers) and (703) 305-6357 (for Unofficial papers).

When filing a FAX in Group 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other

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communications with the PTO that are not for entry into the file of the application. This will expedite processing your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

RV
April 9, 2001

Marian C. Knode

MARIAN C. KNODE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700